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(71) Applicant (*for all designated States except US*): UNIVERSITY OF UTAH RESEARCH FOUNDATION [US/US]; 615 Arapeen Drive, Suite 110, Salt Lake City, UT 84108 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): KELLY, Kimberly, A. [US/US]; 825 University Village, Salt Lake City, UT 84108 (US). JONES, David, A. [US/US]; 1780 E. Logan Avenue, Salt Lake City, UT 84108 (US).

(74) Agents: BOOTH, Paul, M. et al.; Heller Ehrman White & McAuliffe LLP, 1666 K Street, N.W., Suite 300, Washington, DC 20006-1228 (US).

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(54) Title: COLON TUMOR SPECIFIC BINDING PEPTIDES

(57) Abstract: Phage display was used to screen peptide libraries that distinguish between well-differentiated (HCT116) and poorly-differentiated colon carcinoma cells (HT29). The screening protocol used selection and subtraction on intact, viable cells, resulting in phage libraries exhibiting high binding selectivity for the poorly-differentiated HT29 cells. A nine amino acid, disulfide-constrained peptide (RPM) was identified that selectively bound and was internalized into colon cancer cells. The peptide may be used to detect colon cancer cells and also may be used to selectively deliver therapeutic agents to the cells.

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